

Appl. No. 09/657,497  
Filed 09/08/2000

Atty Docket JP920000171US1

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In re the application of: Unite )  
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Filed: September 8, 2000 ) Group Art Unit: 3626  
 )  
For: Build and Operate Program ) Examiner: Robert W. Morgan  
Process Framework and )  
Execution )  
 )  
Appl. No.: 09/657,497 )  
 )  
Appellant's Docket: )  
JP920000171US1 )

**CERTIFICATE OF FACSIMILE TRANSMISSION**

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*Anthony V.S. England*  
Anthony V.S. England

*1-3-2005*  
Date

Board of Patent Appeals and Interferences  
United States Patent and Trademark Office  
Alexandria, Virginia 22313-1450

Dear Sir or Madam:

**APPEAL BRIEF****REAL PARTY IN INTEREST**

The assignee, International Business Machines Corporation, is the real party in  
interest.

**RELATED APPEALS AND INTERFERENCES**

This is the second appeal in the present patent application. Prosecution was reopened  
after Appellant's appeal brief of October 10, 2004. There are no other appeals or interferences

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known to the appellant or its legal representative. International Business Machines Corporation is the sole assignee of the patent application.

### **STATUS OF CLAIMS**

Claims 1, 2, 4-6, 8-11, 13-14, and 21-25 are pending in the application. Appellant filed a reply to Office action on March 30, 2005, in reply to an Office action of December 30, 2004, which reopened prosecution after Appellant's appeal brief of October 10, 2004.<sup>1</sup> An Office action (the "Final Office Action"), dated August 3, 2005, finally rejected all pending claims in the present case under 35 U.S.C. 103(a) as being unpatentable over "A Guide to the Project Management Body of Knowledge" by William R. Duncan in view U.S. Patent 6,381,610 ("Gundewar") and U.S. Patent 5,890,130 ("Cox").

Appellant has appealed from the final rejection. Notice of Appeal, received by the USPTO on November 3, 2005.

### **STATUS OF AMENDMENTS**

No amendments have been filed subsequent to those submitted in Appellant's reply of March 30, 2005. The claims in the Claim Appendix herein set out the claims as amended in Appellant's reply of March 30, 2005.

### **SUMMARY OF CLAIMED SUBJECT MATTER**

The present invention is claimed in the form of a system in independent claims 1 and 6 and a method in independent claims 10, 15, 21, 22, and 24, respectively.

According to the present application:

"Once the program framework has been established, it is traversed to execute the program. An essential function of program management is Schedule Control. When all outputs have been defined, process owners are required to *translate process outputs into a time schedule*. In this way *time dependencies of the completion of each process can be identified*. The use of task activity charts, and the like, is well known, however, *the present invention takes the approach of identifying a subset of all task activities (specifically those that equate to the output of each process) and allocating milestones to process outputs that cut-across defined process streams*. For Schedule control within a project, an activity in the project Schedule is only completed when it

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<sup>1</sup> In the final Office action that was previously appealed, the rejections were based on Duncan and Gundewar, as in the present appeal. The prior final Office action and appeal concerned a third reference that the present Final Office Action has withdrawn in favor of Cox.

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satisfies the pre-defined exit criteria. For Schedule control across projects, *milestones* are used. Milestones are groups of outputs produced by a Project Team, that are inputs to processes owned by other Project Teams. Milestones then represent the key dependencies between Project Teams, and are the primary Schedule control tool at a program level.

Consider again Fig. 8, which identifies the following *process streams*:

- (i) Workforce/training
- (ii) Process
- (iii) Testing/SW Control & Distribution
- (iv) Venues/Infrastructure/Device Configuration & Logistics/Operations
- (v) Application Development

Process streams are a string of processes typically assigned to a single Project Team. *Where there is a link spanning one or more process streams, a milestone is defined* to represent a dependency between Project Teams. Fig. 8 shows such milestones, indicated as Mn.

The activities and milestones can be entered into a suitable scheduling tool, such as the Primavera Project Planner where there are assigned start and end dates and owners. On complex programs, the scheduling tool needs to be able to produce multiple views of activities and milestones. For Project Managers it needs to conveniently list the outputs (e.g. deliverables or services) and the resources required to produce them. For Program Managers the tool needs to list the milestones each project team is responsible for, together with the associated deliverables.

There is considerable advantage to forming a connection between significant process outputs and milestones in time. Firstly, attaching deliverables to milestones removes any ambiguity regarding whether a milestone has been achieved. Second, it identifies major cross-team dependencies, which will have a major cross-team impact in the event of schedule slippage. Additionally, being at a higher level than tasks/activities, it is easier for Program Managers to conduct a meaningful review of progress without having to become involved in the inner workings of individual project teams.

Page 38, line 1-page 39, line 13 (emphasis added).

As stated in the passage set out above from the present application, milestones are outputs produced by one project team, and such milestones from the one project team are inputs to processes owned by other project teams. The language of the claim particularly points this out, thereby distinguishing the invention over the cited art. In accordance with this, claim 1 particularly points out that "selected sets of sequentially-linked ones of the processes are assigned to selected project teams." Further, "the sets are designated as respective process

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streams” and “milestones are designated for ones of the outputs having links spanning across two or more of the process streams.” This enables the benefit described at the end of the passage set out above, i.e., “it identifies major cross-team dependencies, which will have a major cross-team impact in the event of schedule slippage.”

### **Claim 1**

The system of claim 1 concerns a build and operate program that includes “information technology.” This term is used in the claims as a convenient way of referring to systems including computer systems or telecommunications equipment or a combination thereof, including both hardware and software, and is a well-understood term. See, e.g., [www.foldoc.org](http://www.foldoc.org) definition for “Information Technology” (“Applied computer systems - both hardware and software, and often including networking and telecommunications, usually in the context of a business or other enterprise.”) Support for this language is found throughout the specification. See, e.g., page 1, line 27-page 2, line 2 (“A further example of a program is providing technology . . . The program involves building and operating the Olympic Games technology . . . Component projects can, for example, relate to building and operating information technology infrastructure, computer application systems, and telecommunications systems . . . and defining the processes for the collection and dissemination of results information . . .”); page 2, line 30-page 3, line 1 (“An example of a process methodology is the Capability Maturity Model (CMM) . . . The focus of CMM is the build phase of software engineering projects.”); page 12, line 20-page 13, line 2 (“To place the size of the program . . . in perspective . . . In terms of computing and telecommunications resources, 80 IBM MQ series servers and 3 IBM S/390 mainframes are deployed. Additionally, there will be 17,000 desktop and portable computing devices in use, as well as numerous other peripheral devices such as printers, validators and displays. An estimated 13 million lines of program code was written to implement all the necessary applications.”); page 38, lines 1 and 2 (“Once the . . . framework has been established, it is traversed to execute the program.”).

The system, as claimed, includes one or more build processes 20-26, one or more operate processes 30-36, and one or more management processes 40-44. Present application, FIG’s 1-4; page 8, lines 4-9; page 9, lines 10-17, line 30; page 10, line 1. According to the claim, the information technology includes data representing inputs and outputs for processes

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and a plurality of links 50, 60 70, 80, 90, 100 and 28, 38, and 48 and 110-116, 120-124, 130-134 and 140-144, 150 and 170 that provide connections linking outputs from the build, operate and management processes to inputs of respective other build, operate or management processes. FIG's 1-4; page 8, lines 13-31, page 9, lines 1-5, lines 10-28. The links have exit conditions 162-166 and 182 associated with them that must be satisfied before the link can be traversed from output to input. FIG. 4; page 10, lines 4-12. Selected sets of sequentially-linked processes are assigned to selected project teams, and the sets are designated as respective process streams (Workforce/training, Process, Testing/SW Control & Distribution, Venues/Infrastructure/Device Configuration & Logistics/Operations, Application Development). FIG. 8; Page 38, lines 12-27. Planning milestones m1-m20 are designated for the outputs having links spanning across two or more of the process streams. FIG. 8; Page 12, lines 5-10, Page 38, lines 7-10, 12-15, 27-28.

The claim states that information technology includes computer systems or telecommunications equipment, where the computer systems or telecommunications equipment includes software embodied in computer-readable media and hardware. See, e.g., page 1, line 27-page 2, line 2 ("A further example of a program is providing technology . . . The program involves building and operating the Olympic Games technology . . . Component projects can, for example, relate to building and operating *information technology infrastructure* . . . and defining the *processes* for the collection and dissemination of results information . . .") (emphasis added).<sup>2</sup> "Information systems" is a well-understood term used in the specification as a convenient way of referring to systems including computer systems or telecommunications equipment or a combination thereof, including both hardware and software. See, e.g., [www.foldoc.org](http://www.foldoc.org) definition for "Information Technology" ("Applied

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<sup>2</sup> See also page 2, line 30-page 3, line 1 ("An example of a *process methodology* is the Capability Maturity Model (CMM) . . . The focus of CMM is the build phase of *software engineering projects*." (emphasis added); page 12, line 20-page 13, line 2 ("To place the size of the program . . . in perspective . . . In terms of computing and telecommunications resources, 80 IBM MQ series servers and 3 IBM S/390 mainframes are deployed. Additionally, there will be 17,000 desktop and portable computing devices in use, as well as numerous other peripheral devices such as printers, validators and displays. An estimated 13 million lines of program code was written to implement all the necessary applications."); page 38, lines 1 and 2 ("Once the . . . framework has been established, it is traversed *to execute the program*." (emphasis added).

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computer systems - both hardware and software, and often including networking and telecommunications, usually in the context of a business or other enterprise.”).

Also, the claims recite *building and operating infrastructure for events*, such as sporting events. For support, see the present specification, e.g., page 1, line 27-page 2, line 2 (“A further example of a program is providing technology . . . The program involves building and operating the Olympic Games technology . . . Component projects can, for example, relate to building and operating *information technology infrastructure* . . .”). Such infrastructure includes, for example, computing and telecommunication equipment. Present application, page 12, line 20-page 13, line 2 (“To place the size of the program . . . in perspective . . . In terms of computing and telecommunications resources, 80 IBM MQ series servers and 3 IBM S/390 mainframes are deployed. Additionally, there will be 17,000 desktop and portable computing devices in use, as well as numerous other peripheral devices such as printers, validators and displays. An estimated 13 million lines of program code was written to implement all the necessary applications.”).

Claim 1 further states that data included in the information technology is embodied in computer-readable media. Likewise, claim 1 states that the exit conditions, process streams, planning milestones, and risk factors are embodied in computer-readable media of the information technology data. As pointed out immediately above, the specification in the present case states that processes, inputs, outputs and links referred to in the specification are implemented in information technology. It is also well known that processes implemented in computer systems include software and data embodied in computer-readable media.

The data representing the linked process inputs and outputs provides a schedule of the processes for building and operating infrastructure for the event. Present specification, e.g., page 12, lines 11-14; page 38, lines 1-14.

Since the selected sets of sequentially-linked ones of the processes are assigned to selected project teams and the sets are designated as respective process streams, the teams are associated with the schedule of the build and operate processes. Similarly, since the planning milestones are designated for ones of the outputs having links spanning across two or more of the process streams, dependencies among teams having an impact on the schedule are identified. Present specification, page 38, line 1-page 39, line 13.

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Claim 10 also includes a step of associating exit conditions with the respective links. Present specification (links having exit conditions 162-166 and 182 associated with them that must be satisfied before the link can be traversed from output to input) FIG. 4; page 10, lines 4-12.

Claim 10 also includes a step of assigning selected sets of sequentially-linked ones of the processes to selected project teams and designating the sets as respective process streams embodied in computer-readable media in the information technology data. Present specification (sets of sequentially-linked processes assigned to selected project teams and designated as respective process streams Workforce/training, Process, Testing/SW Control & Distribution, Venues/ Infrastructure/ Device Configuration & Logistics/Operations, Application Development) FIG. 8; Page 38, lines 12-27.

Claim 10 also includes a step of designating planning milestones embodied in computer-readable media in the information technology data for ones of the outputs having links spanning across two or more of the process streams, so that dependencies among teams having an impact on the schedule are identified. Present specification (milestones m1-m20 designated for the outputs having links spanning across two or more of the process streams) FIG. 8; Page 12, lines 5-10, Page 38, lines 7-10, 12-15, 27-28.

Claim 10 also includes a step of assigning risk factors to the processes. Present specification (risk factors assigned to the processes) page 26, line 19 - page 30, line 2.

Claim 10 also includes a step of generating a list of the processes for each team's process stream. Present specification, and the system generates a list of the processes for each team's process stream page 26, lines 4-14 and FIG. 16A and 16B (regarding listing processes owned by a team).

#### **Claim 15.**

Claim 15 is a method form similar to claim 1, and also includes the step of executing the program, including traversing the links from their respective outputs to their respective inputs, wherein a respective one of the links 150 or 170 is traversed only if the link's exit conditions 162 -166 or 166 and 182 are satisfied. Present specification, FIG. 4; page 10, lines 1-12.

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### **Claim 21**

Claim 21 has language similar to claim 6, but is in method form. Claim 21 includes a step of defining a set of build processes followed by a set of testing processes, followed by a set of operations processes, and followed by a set of game-day processes. Present specification (build processes 20-26, which includes testing process 22 as shown in FIG. 6, and operate processes 30-36) FIG's 1-4 and 6; page 8, lines 4-9; page 9, lines 10-17, line 30; page 10, line 1; page 13, lines 4-8.

Claim 21 also includes a step of defining a set of management processes related to all of said build, testing, operations, and game-day processes. Present specification (management processes 40-44) FIG's 1-4; page 8, lines 4-9; page 9, lines 10-17, line 30; page 10, line 1.

Claim 21 also includes a step of forming a plurality of links associated with respective ones of the data inputs and outputs. Present specification (links 50, 60 70, 80, 90, 100 and 28, 38, and 48 and 110-116, 120-124, 130-134 and 140-144, 150 and 170 that provide connections linking outputs from the build, operate and management processes to inputs of respective other build, operate or management processes) FIG's 1-4; page 8, lines 13-31, page 9, lines 1-5, lines 10-28.

Claim 21 also includes a step of associating exit conditions with the respective. Present specification (links having exit conditions 162-166 and 182 associated with them that must be satisfied before the link can be traversed from output to input) FIG. 4; page 10, lines 4-12.

Claim 21 also includes a step of assigning selected sets of sequentially-linked ones of the processes to selected project teams and designating the sets as respective process streams in data embodied in computer-readable media of the information technology data. Present specification (sets of sequentially-linked processes assigned to selected project teams and designated as respective process streams Workforce/training, Process, Testing/SW Control & Distribution, Venues/ Infrastructure/ Device Configuration & Logistics/Operations, Application Development) FIG. 8; Page 38, lines 12-27.

Claim 21 also includes a step of designating planning milestones embodied in computer-readable media in the information technology data. Present specification (milestones m1-m20 designated for the outputs having links spanning across two or more of the process streams) FIG. 8; Page 12, lines 5-10, Page 38, lines 7-10, 12-15, 27-28.



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Claim 21 also includes a step of assigning risk factors to the processes. Present specification (risk factors assigned to the processes) page 26, line 19 - page 30, line 2.

Claim 21 also includes a step of generating a list of the processes for each team's process stream. Present specification, and the system generates a list of the processes for each team's process stream page 26, lines 4-14 and FIG. 16A and 16B (regarding listing processes owned by a team).

#### **Claim 22**

Claim 22 is a method form like claim 15, but includes the step of determining program requirements 205. Present specification, FIG. 5A, Page 10, lines 20-22.

#### **Claim 24**

Claim 24 is a method form like claim 22, but has an additional step regarding executing the program and has additional limitations regarding repeating of steps. Present specification, page 38, lines 1-2; page 6, lines 15-20.

### **GROUND\$ OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1, 2, 4-6, 8-11, 13-14, and 21-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Duncan in view of Gundewar and Cox.

### **ARGUMENTS**

#### **Claims 1, 2, 4 and 5**

Solely for the purpose of this Appeal, claims 1, 2, 4 and 5 stand or fall together.

#### **Claim 1, Rejection Under 35 USC 103(a)**

The Final Office Action refers to arguments presented in the Office action of December 30, 2004, regarding the relied upon references. Appellant therefore refers herein to arguments presented in the Office action of December 30, 2004, as well as in the Final Office Action. Appellant respectfully contends the rejection under 35 U.S.C. 103(a) is improper because all the limitations of claim 1 are not taught or suggested by the cited art. In addition,

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Appellant respectfully contends that Examiner's arguments regarding process streams and improperly attacking references individually are not a basis for rejection.

**All the limitations of claim 1 are not taught or suggested by the cited art.**

Appellant respectfully contends that all the limitations of claim 1 are not taught or suggested by Duncan, Gundewar, and Cox. Therefore the rejection is improper. MPEP 2143.03 (citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)).

*Cox does not teach or suggest linking processes assigned to selected project teams, designating sets of the assigned processes as process streams, and spanning across two or more process streams.*

The present Final Office Action relies upon *Cox*<sup>3</sup> for teaching with regard to assigning selected sets of sequentially-linked processes to selected project teams, as claimed in the present case. Final Office Action, page 2, first paragraph of item 5 (citing Office action of December 30, 2004, which cites on page 5, line 17 - page 6, line 4, teachings by Cox, at column 3, lines 47-66, column 6, lines 34-37 and 41-46, and FIG. 5, about a flowchart with vertical and horizontal arrows representing communications links between departments). The Office action of December 30, 2004, contends these teachings are equivalent to what is claimed in the present case regarding linking ones of the processes assigned to selected project teams, designating sets [of the assigned processes] as process streams, and spanning across two or more process streams. Office action of December 30, 2004, page 6, lines 5-8. Further, the Office action of December 30, 2004, contends these teachings, thus interpreted, recite aspects of claims 1, 6, 10 and 21 as follows: "selected sets of sequentially-linked ones of the processes are assigned to selected project teams and the sets are designated as respective process streams," and "outputs having links spanning across two or more of the process streams." Office action of December 30, 2004, page 5, lines 13-16.

Cox teaches that vertical arrows link horizontal line segments. Cox, column 3, lines 47-50 and FIG. 1. Cox teaches that absence of a horizontal line segment represents a

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<sup>3</sup> A previous final Office action contended that *Duncan* teaches "assigning selected sets of sequentially-linked processes to selected project teams," and that "the sets are designated as respective process streams," as claimed. Office action, dated May 5, 2004, page 4 (citing *Duncan*, page 13).

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department *not* engaged in a conversation or relationship with another department and a solid or broken line indicates the department that the line represents *is* engaged in a conversation or relationship with another department, with the solid line indicating that the department represented by the line segment *is* obligated to perform an action or initiate a communication and the broken line indicating that the department represented is *not* obligated. Cox, column 3, line 50 - column 4, line 12. Cox teaches that a vertical arrow connected to such a line segment indicates an action or communication in the context of its associated conversation or relationship. Cox, column 3, lines 53-60.

Appellant respectfully contends that i) a department having a conversation or relationship with another department, and having obligations or not having obligations to the other department, as represented by a horizontal line segment in Cox, and ii) actions or communications connected to that conversation or relationship, as represented by vertical arrows in Cox, does not teach or suggest a set of sequentially-linked processes assigned to a project team, as recited in the claims of the present application.

Also, the Office action of December 30, 2004, apparently equates elongated vertical arrows between sales and production in FIG. 5 to links spanning two or more processes, as recited in the claims and shown in FIG. 8, for example, of the present application. Office action of December 30, 2004, page 5, lines 17-22. Appellant respectfully disagrees. Since the arrows shown by Cox are spanning horizontal line segments representing a department having a conversation or relationship of with another department, with and without obligations, Appellant contends the arrows do not teach or suggest links spanning two or more "process streams," particularly since process streams are sets of sequentially-linked processes assigned to selected project teams, as claimed.

*Cox does not teach or suggest risk factors.*

In addition to the above, Appellant's reply of March 30, 2005, added a limitation about risk factors to claim 1 in the present case. More specifically, claim 1 now states that what is claimed includes assigning risk factors embodied in computer-readable media of the information technology data to the processes, and generating, by the system, a list of the processes for each team's process stream, in order to identify schedule risk. The Final Office Action points at language in Cox for this teaching. Final Office Action, page 3, lines 3-15

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(citing Cox, FIG's 5, 12 and 13; column 7, lines 35-63; and column 8, lines 55-67). However, the cited teaching does not concern risk factors at all. Appellant is unable to find the term "risk," or a similar term, *anywhere* in Cox. The Final Office Action does not even present an argument that the teachings of Cox concerns risk factors, other than indirectly, i.e., by citing Cox for this aspect of the rejection.

*Gundewar does not teach or suggest milestones designated for outputs having links spanning across two or more process streams.*

The rejection also relies on a passage in Gundewar, col. 5, lines 57-64, which the present Final Office Action states teaches a method for automated project planning with entry and exit criteria that may include milestone, approval, procedure completions and/or design or production events necessary to enter or exit the particular processes. The Final Office Action contends that the cited passage teaches "milestones are designated for ones of the outputs," as claimed in the present case. Final Office Action, page 5. Appellant respectfully contends that the while Gundewar may teach that milestones are designated for certain outputs, even if Cox did teach about outputs having links spanning across two or more of the process streams, this still does not teach or suggest that milestones are designated for outputs *having links spanning across two or more of the process streams*, as claimed in the present case (emphasis added). The Final Office Action does not cite any teaching in the prior art about designating milestones for these particular kinds of outputs, as claimed in the present case.

**Examiner's arguments regarding "process streams" are not a basis for rejection.**

In responding to arguments presented in Appellant's reply of March 30, 2005, the Final Office Action states that there is no strict definition for "process streams." Final Office Action, page 5, line 1. Appellant notes that "process streams" is language in the claims. Appellant is unsure of the intended significance of this assertion, since no explanation is offered, and Appellant is unaware of any legal requirement that claim language must set out a strict definition. Further, the term "process streams" is not only defined in the specification, but is explicitly defined in the claims themselves. See, for example, claim 1 ("selected sets of sequentially-linked ones of the processes are assigned to selected project teams and the sets

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are designated as respective process streams embodied in computer-readable media of the information technology data"); see also present specification, page 38, lines 23-26.

**Examiner's arguments regarding improperly attacking references individually are not a basis for rejection.**

In responding to arguments presented in Appellant's reply of March 30, 2005, the Final Office Action also contends Appellant's arguments improperly attacked the references individually. Final Office Action, page 5, line 1-5. Appellant is unable to determine from the Final Office Action which of the remarks of Appellant are considered to have improperly attacked the references individually, since no explanation or specific citation is given. Appellant's specific remarks with regard to the prior art, which are essentially set out again herein above, were primarily limited to analyzing portions of the Cox reference that the Office action of December 30, 2004, relied upon for the rejections. See Office action of December 30, 2004, page 5, line 13 - page 6, line 10; page 8, lines 8-22; page 10, line 16 - page 11, line 8; page 13, lines 1-12; page 15, lines 3-17; page 17, lines 9-20; page 19, line 14 - page 20, line 8. Appellant's remarks were primarily limited to Cox because Cox was a newly cited reference and Appellant had previously presented arguments regarding the other references relied upon for the rejection. Appellant also stated the following:

Further, Appellant herein amends the independent claims to particularly and clearly point out additional patentable distinctions of the present invention not taught or suggested by Cox, alone or in combination with or any of the cited art. Specifically, claims 1, 6, 10 and 21 are herein amended to recite that the invention includes assigning risk factors embodied in computer-readable media of the information technology data to the processes, and generating, by the system, a list of the processes for each team's process stream, to identify schedule risk, in order to identify schedule risk. Neither Cox alone, nor Cox in combination with any of the cited art, teaches or suggests this.

Appellant's reply of March 30, 2005, page 15, penultimate paragraph. Appellant contends Appellant's reply of March 30, 2005, does not improperly attack the references individually.

For all the above reasons, and particularly because the present invention, as claimed, advantageously provides a previously nonobvious system that enables identifying major cross-team dependencies, which would have a major cross-team impact in the event of schedule slippage, Appellant respectfully contends claim 1 is allowable.

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### **Claims 2, 4 and 5**

Appellant respectfully contends that claims 2, 4 and 5 are allowable at least because they depend on claim 1. MPEP 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious," citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

### **Claims 6, 8 and 9**

Solely for the purpose of this Appeal, claims 6, 8 and 9 stand or fall together.

#### **Claim 6, Rejection Under 35 USC 103(a)**

Claim 6 also stands rejected under 35 U.S.C. 103(a) as being unpatentable over Duncan, in view of Gundewar and Cox. However, claim 6 has all the limitations of claim 1. Consequently, Appellant respectfully contends claim 6 is allowable for the reasons set out above regarding claim 1. Further, claim 6 is all the more allowable because it is more narrowly limited to a sporting event, and further includes a set of game-day processes, neither of which are taught or suggested by the cited art.

### **Claims 8 and 9**

Appellant respectfully contends that claims 8 and 9 are allowable at least because they depend on claim 6. MPEP 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious," citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

### **Claims 10, 11, 13 and 14**

Solely for the purpose of this Appeal, claims 10, 11, 13 and 14 stand or fall together.

#### **Claim 10, Rejection Under 35 USC 103(a)**

Claim 10 also stands rejected under 35 U.S.C. 103(a) on the same grounds as claim 1. Claim 10 sets out limitations that are like claim 1 insofar as the prior art rejections are concerned, except that claim 10 is for a method form of the invention, and except that the claimed inputs, outputs, links and exit conditions are not explicitly stated as being in data that is included in computer systems or telecommunications equipment. Aside from this structural aspect, the process limitations regarding inputs, outputs, links, exit conditions and their

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interrelation are as set out in claim 1. Appellant therefore respectfully contends the rejection under 35 U.S.C. 103(a) is improper for reasons set out above regarding the rejection under 35 U.S.C. 103(a) of claim 1, and that the invention of claim 10 is patentably distinct.

For all the above reasons, and particularly because the present invention, as claimed, advantageously provides a previously nonobvious process that enables identifying major cross-team dependencies, which would have a major cross-team impact in the event of schedule slippage, Appellant respectfully contends claim 10 is allowable.

#### **Claims 11, 13 and 14**

Appellant respectfully contends that claims 11, 13 and 14 are allowable at least because they depend on claim 10. MPEP 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious," citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

#### **Claims 15, 16, 18 and 19**

Solely for the purpose of this Appeal, claims 15, 16, 18 and 19 stand or fall together.

#### **Claim 15, Rejection Under 35 USC 103(a)**

Claim 15 also stands rejected under 35 U.S.C. 103(a) on the same grounds as claim 6. Claim 15 sets out limitations that are like claim 1 insofar as the prior art rejections are concerned, except for the following: i) claim 15 is for a method form of the invention, ii) the claimed inputs, outputs, links and exit conditions of claim 15 are not explicitly claimed as being in data that is included in computer systems or telecommunications equipment, and iii) claim 15 has an additional step regarding executing the program. Aside from the structural aspect of ii), the process limitations regarding inputs, outputs, links, exit conditions and their interrelation are as set out in claim 1. Appellant therefore respectfully contends the rejection under 35 U.S.C. 103(a) is improper for reasons set out above regarding the rejection under 35 U.S.C. 103(a) of claim 1, and that the invention of claim 15 is patentably distinct.

#### **Claims 16, 18 and 19**

Claims 16, 18 and 19 are allowable at least because they depend on claim 15. MPEP 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim

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depending therefrom is nonobvious," citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

### **Claim 21**

Claim 21 stands or falls alone.

### **Claim 21, Rejection Under 35 USC 103(a)**

Claim 21 also stands rejected under 35 U.S.C. 103(a) on the same grounds as claim 6. Claim 21 sets out limitations that are like claim 6 insofar as the prior art rejections are concerned, except for the following: i) claim 21 is for a method form of the invention, and ii) the inputs, outputs, links and exit conditions of claim 21 are not explicitly claimed as being in data that is included in computer systems or telecommunications equipment. Aside from this structural aspect of ii), the process limitations regarding inputs, outputs, links, exit conditions and their interrelation are as set out in claim 6. Appellant therefore respectfully contends the rejection under 35 U.S.C. 103(a) is improper for reasons set out above regarding the rejection under 35 U.S.C. 103(a) of claim 6, and that the invention of claim 21 is patentably distinct.

### **Claim 22 and 23**

Solely for the purpose of this Appeal, claims 22 and 23 stand or fall together.

### **Claim 22, Rejection Under 35 USC 103(a)**

Claim 22 also stands rejected under 35 U.S.C. 103(a) on the same grounds as claim 15. Claim 22 sets out limitations that are like claim 15 insofar as the prior art rejections are concerned, except claim 22 includes a step of determining program requirements. Appellant therefore respectfully contends the rejection under 35 U.S.C. 103(a) is improper for reasons set out above regarding the rejection under 35 U.S.C. 103(a) of claim 15, and that the invention of claim 21 is patentably distinct.

### **Claim 23**

Claim 23 is allowable at least because it depends on claim 22. MPEP 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious," citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).



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### **Claims 24 and 25**

Solely for the purpose of this Appeal, claims 24 and 25 stand or fall together.

### **Claim 24, Rejection Under 35 USC 103(a)**

Claim 24 also stands rejected under 35 U.S.C. 103(a) on the same grounds as claim 10. Claim 24 sets out limitations that are like claim 22 insofar as the prior art rejections are concerned, except that claim 24 has an additional step regarding executing the program and has additional limitations regarding iterative repeating of steps. Appellant therefore respectfully contends the rejection under 35 U.S.C. 103(a) is improper for reasons set out above regarding the rejection under 35 U.S.C. 103(a) of claim 22, and that the invention of claim 24 is patentably distinct.

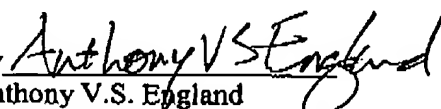
### **Claim 25**

Claim 25 is allowable at least because it depends on claim 22. MPEP 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious," citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

## **REQUEST FOR ACTION**

Based on the above arguments, Appellant requests that claims 1, 2, 4-6, 8-11, 13-16, 18, 19 and 21-25 of the present application be allowed and the application promptly passed to issuance.

Respectfully submitted,

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Attachment: Appendix "AA" Claims  
Appendix "BB" Evidence  
Appendix "CC" Related Proceedings

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**APPENDIX "AA" CLAIMS**

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1. (previously presented) A system for building and operating infrastructure for an event, comprising:

information technology for a build and operate program, wherein the information technology includes computer systems or telecommunications equipment, the computer systems or telecommunications equipment including software embodied in computer-readable media and including hardware, and wherein the program includes:

- one or more build processes;
- one or more operate processes; and
- one or more management processes; and

wherein the information technology includes data embodied in computer-readable media representing i) inputs and outputs for ones of said processes and ii) a plurality of links associated with respective ones of the inputs and outputs, wherein the links provide connections linking outputs from ones of said build, operate and management processes to inputs of respective other ones of the build, operate or management processes, wherein the data representing the linked process inputs and outputs provides a schedule of the processes for building and operating infrastructure for the event;

wherein such a link has exit conditions embodied in computer-readable media of the information technology data and associated with the link, and the exit conditions for the link must be satisfied before the link can be traversed from output to input;

wherein selected sets of sequentially-linked ones of the processes are assigned to selected project teams and the sets are designated as respective process streams embodied in computer-readable media of the information technology data, so that the teams are associated with the schedule of the build and operate processes;

wherein planning milestones embodied in computer-readable media of the information technology data are designated for ones of the outputs having links spanning across two or more of the process streams, so that dependencies among teams having an impact on the schedule are identified; and

wherein, to identify schedule risk, risk factors embodied in computer-readable media of the information technology data are assigned to the processes and the system generates a list of the processes for each team's process stream.

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2. (previously presented) The system of claim 1, wherein said build processes precede said operate processes, with an overlapping boundary therebetween, such that some operate processes are able to be executed before all build processes are executed.

3. (canceled)

4. (previously presented) The system of claim 3, wherein each management process is linked only to either a build process or an operate process.

5. (previously presented) The system of claim 1, wherein said exit conditions represent deliverable products or services that have been agreed to be provided.

6. (previously presented) A system for building and operating infrastructure for a large-scale sporting event, comprising:

information technology for the event, wherein the information technology includes computer systems or telecommunications equipment, the computer systems or telecommunications equipment including software embodied in computer-readable media and including hardware, and wherein the event includes:

a set of build processes generally followed by a set of testing processes, generally followed by a set of operations processes, generally followed by a set of game-day processes;

a set of management processes related to all of said build, testing, operations, and game-day sets of processes; and

wherein the information technology includes data embodied in computer-readable media representing i) inputs and outputs for ones of said processes and ii) a plurality of links, wherein the links provide connections linking outputs from ones of said build, test, operate, game-day, and management processes to inputs of respective other ones of the build, test, operate, game-day, and management processes;

wherein such a link has exit conditions embodied in computer-readable media of the information technology data and associated with the link, and the exit conditions for the link must be satisfied before the link can be traversed from output to input;

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wherein sets of selected, sequentially-linked ones of the processes are assigned to selected project teams, and the sets are designated as respective process streams embodied in computer-readable media of the information technology data, so that dependencies among the teams are identified for a schedule of processes for building and operating infrastructure for the event;

wherein planning milestones embodied in computer-readable media of the information technology data are designated for ones of the outputs having links spanning across two or more of the process streams, so that dependencies among teams having an impact on the schedule are identified; and

wherein, to identify schedule risk, risk factors embodied in computer-readable media of the information technology data are assigned to the processes and the system generates a list of the processes for each team's process stream.

7. (canceled)

8. (previously presented) The system of claim 6, wherein each management process is linked only to either a build process or an operate process.

9. (previously presented) The system of claim 6, wherein said exit conditions represent deliverable products or service levels that have been agreed to be provided.

10. (previously presented) A method for building and operating infrastructure for an event, the method comprising the steps of:

defining, in data embodied in computer-readable media of information technology, one or more build processes, one or more operate processes and one or more management processes, wherein the information technology includes computer systems or telecommunications equipment, the computer systems or telecommunications equipment including software embodied in computer-readable media and including hardware, and wherein data for the build, operate and management processes in the information technology include respective inputs and outputs embodied in computer-readable media;

forming a plurality of links associated with respective ones of the data inputs and outputs, wherein the links provide connections linking the outputs from ones of said build,

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**APPENDIX "AA" CLAIMS**

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operate, and management processes to the inputs of respective other ones of the build, operate, or management processes;

associating, with the respective links, exit conditions embodied in computer-readable media in the information technology data, wherein the exit condition for a respective one of the links must be satisfied before the link can be traversed from output to input;

assigning selected sets of sequentially-linked ones of the processes to selected project teams and designating the sets as respective process streams embodied in computer-readable media in the information technology data, so that dependencies among the teams are identified for a schedule of processes for building and operating infrastructure for the event;

designating planning milestones embodied in computer-readable media in the information technology data for ones of the outputs having links spanning across two or more of the process streams, so that dependencies among teams having an impact on the schedule are identified;

assigning to the processes risk factors embodied in computer-readable media of the information technology data; and

generating, by the system, a list of the processes for each team's process stream, wherein the risk factors and the list identify schedule risk.

11. (original) The method of claim 10, wherein said build processes precede said operate processes, with an overlapping boundary therebetween such that some operate processes are able to be executed before all build processes are executed.

12. (canceled)

13. (previously presented) The method of claim 11, wherein each management process is linked only to either a build process or an operate process.

14. (original) The method of claim 10, wherein said exit conditions represent deliverable products or service levels that have been agreed to be provided.

15-20. (canceled)

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**APPENDIX "AA" CLAIMS**

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21. (previously presented) A method for building and operating infrastructure for an event, comprising the steps of:

defining, in data embodied in computer-readable media of information technology, a set of build processes followed by a set of testing processes, followed by a set of operations processes, and followed by a set of game-day processes, wherein the information technology includes computer systems or telecommunications equipment, the computer systems or telecommunications equipment including both hardware and software; defining, in data embodied in computer-readable media of the information technology, a set of management processes related to all of said build, testing, operations, and game-day processes, wherein data embodied in computer-readable media of the information technology for the build, testing, operations, management and game-day processes have respective inputs and outputs;

forming a plurality of links associated with respective ones of the data inputs and outputs, wherein the links provide connections linking outputs from ones of said build, test, operate, game-day, and management processes to the inputs of respective other ones of the build, test, operate, game-day, and management processes; and

associating, with the respective links, exit conditions in data embodied in computer-readable media of the information technology, wherein the exit condition for a respective one of the links must be satisfied before the link can be traversed from output to input;

assigning selected sets of sequentially-linked ones of the processes to selected project teams and designating the sets as respective process streams in data embodied in computer-readable media of the information technology data, so that dependencies among the teams are identified for a schedule of processes for building and operating infrastructure for the event;

designating planning milestones embodied in computer-readable media in the information technology data, wherein the milestones are for ones of the outputs having links spanning across two or more of the process streams, so that dependencies among teams having an impact on the schedule are identified;

assigning to the processes risk factors embodied in computer-readable media of the information technology data; and

generating, by the system, a list of the processes for each team's process stream, wherein the risk factors and the list identify schedule risk.

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**APPENDIX "AA" CLAIMS**

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22. (previously presented) The method of claim 10, wherein the method includes:

executing the processes, including traversing said links over time.

23. (original) The method of claim 22, wherein said requirements include deliverable products and service levels.

24. (previously presented) The method of claim 21, wherein the method includes:

executing the processes, including traversing said links over time.

25. (original) The method of claim 24, wherein said requirements include deliverable products and service levels.

26 - 28. (canceled)

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**None.**



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**APPENDIX "CC"  
RELATED PROCEEDINGS**

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**None.**